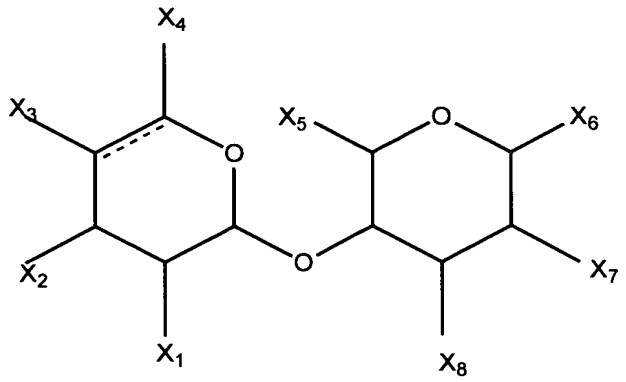
We claim:

1. A method of improving, preventing or treating a condition selected from the group consisting of parasitic infection, bacterial infection, viral infection, nerve injury or damage, nerve regeneration, Downs syndrome, inflammatory disease, brain injury, lung cancer, cancer, head and neck cancer, skin cancer, pancreatic cancer, metastatic cancer, GI cancer, GI disease, skin disease, allergy and autoimmune disease, wherein said method comprises administering a compound of the formula:



wherein:

the dotted line is an optional double bond;

X_1 is selected from the group consisting of hydroxyl, C_1 to C_{12} alkoxy, C_1 to C_{12} substituted alkoxy, sulfate, amino, (monosubstituted) amino and (disusbstituted)amino;

X_2 is selected from the group consisting of hydroxyl, C_1 to C_{12} alkoxy and C_1 to C_{12} substituted alkoxy;

X_3 is selected from the group consisting of hydrogen, hydroxyl, C_1 to C_{12} alkoxy and C_1 to C_{12} substituted alkoxy;

X_4 is selected from the group consisting of C_1 to C_{12} alkyl, C_1 to C_{12} substituted alkyl, hydrogen and the formula –C(O)OR, wherein R is absent or selected from the group consisting of C_1 to C_{12} alkyl, C_1 to C_{12} substituted alkyl and hydrogen;

X_5 is selected from the group consisting of C_1 to C_{12} alkyl, C_1 to C_{12} substituted alkyl, C_1 to C_{12} alkoxycarbonyl and C_1 to C_{12} substituted alkoxycarbonyl;

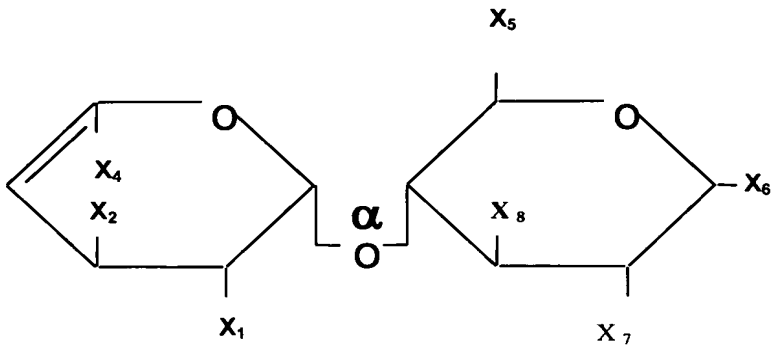
X_6 is selected from the group consisting of hydroxyl, C_1 to C_{12} alkoxy and C_1 to C_{12} substituted alkoxy;

X_7 is selected from the group consisting of hydroxyl, C_1 to C_{12} alkoxy, C_1 to C_{12} substituted alkoxy, sulfate, amino, (monosubstituted) amino and (disusbstituted)amino; and

X_8 is selected from the group consisting of hydroxyl, C_1 to C_{12} alkoxy and C_1 to C_{12} substituted alkoxy.

2. The method of claim 1, wherein: X_1 is selected from the group consisting of -OH, $-OSO_3H$, $-OSO_3^-$, $-NHSO_3H$ and $–NHSO_3^-$; X_2 is -OH; X_3 is selected from the group consisting of -OH and hydrogen; X_4 is selected from the group consisting of $-CH_2OSO_3H$, $-CH_2OSO_3^-$, $-C(O)O^-$, -C(O)OH and hydrogen; X_5 is selected from the group consisting of $-CH_2OH$, $-CH_2OSO_3H$ and CO_2H; X_6 is -OH; X_7 is selected from the group consisting of $-OSO_3H$, $-OSO_3^-$, $–NHSO_3H$, $–NHSO_3^-$, $-NHC(O)CH_3$, $-NH_2$ and $–NH_3^+$; and X_8 is -OH.

3. The method of claim 1, wherein said compound has the formula:



wherein:

X_1 is selected from the group consisting of hydroxyl, C_1 to C_{12} alkoxy, C_1 to C_{12} substituted alkoxy, sulfate, amino, (monosubstituted) amino and (disusbstituted)amino;

X_2 is selected from the group consisting of hydroxyl, C_1 to C_{12} alkoxy and C_1 to C_{12} substituted alkoxy;

X_3 is selected from the group consisting of hydrogen, hydroxyl, C_1 to C_{12} alkoxy and C_1 to C_{12} substituted alkoxy;

X_4 is selected from the group consisting of C_1 to C_{12} alkyl, C_1 to C_{12} substituted alkyl, hydrogen and the formula –C(O)OR, wherein R is absent or selected from the group consisting of C_1 to C_{12} alkyl, C_1 to C_{12} substituted alkyl and hydrogen;

X_5 is selected from the group consisting of C_1 to C_{12} alkyl, C_1 to C_{12} substituted alkyl, C_1 to C_{12} alkoxycarbonyl and C_1 to C_{12} substituted alkoxycarbonyl;

X_6 is selected from the group consisting of hydroxyl, C_1 to C_{12} alkoxy and C_1 to C_{12} substituted alkoxy;

X_7 is selected from the group consisting of hydroxyl, C_1 to C_{12} alkoxy, C_1 to C_{12} substituted alkoxy, sulfate, amino, (monosubstituted) amino and (disusbstituted)amino; and

X_8 is selected from the group consisting of hydroxyl, C_1 to C_{12} alkoxy and C_1 to C_{12} substituted alkoxy.

4. The method of claim 3, wherein: X_1 is selected from the group consisting of -OH, $-OSO_3H$, $-OSO_3^-$, $-NHSO_3H$ and $-NHSO_3^-$; X_2 is -OH; X_4 is selected from the group consisting of $-CH_2OSO_3H$, $-CH_2OSO_3^-$, $-C(O)O^-$, -C(O)OH and hydrogen; X_5 is selected from the group consisting of $-CH_2OH$, $-CH_2OSO_3H$, $-CH_2OSO_3^-$, $-C(O)O^-$ and -C(O)OH; X_6 is -OH; X_7 is selected from the group consisting of $-OSO_3H$, $-OSO_3^-$, $-NHSO_3H$, $-NHSO_3^-$, $-NHC(O)CH_3$, $-NH_2$ and $-NH_3^+$; and X_8 is -OH.

5. The method of claim 3, wherein: X_1 is $-OSO_3^-$; X_2 is -OH; X_4 is $-C(O)O^-$; X_5 is $-CH_2OSO_3^-$; X_6 is -OH; X_7 is $-NHSO_3^-$; and X_8 is -OH.

6. The method of claim 3, wherein: X_1 is $-OSO_3^-$; X_2 is -OH; X_4 is $-C(O)O^-$; X_5 is $-CH_2OH$; X_6 is -OH; X_7 is $-NHSO_3^-$; and X_8 is -OH.

7. The method of claim 3, wherein said condition is selected from the group consisting of measles infection, rabies infection, adenovirus infection, parasitic infection, shigella infection, pseudomonas infection, helicobacter infection, streptococcus infection, and neisseria infection.

8. The method of claim 3, wherein said condition is selected from the group consisting of nerve injury or damage, central nervous system (CNS) inflammatory disease, brain injury, lung cancer, CNS cancer, head and neck cancer, skin cancer, pancreatic cancer, metastatic cancer and skin disease.

9. A method for inhibiting chemokine-dependent migration or chemokine-dependent adhesion of cells expressing moesin, comprising mediating the inhibition of the chemokine-dependent activity through at least one activation or reduction of moesin activity or at least one modification of existing moesin activity.

10. The method of claim 1, wherein said cells comprise immune, immune-related, tumor or malignant cells.

11. The method of claims 9 or 10, wherein said activation or modification of moesin activity comprises an activation or modification that can be mediated through binding of a saccharide to meosin.

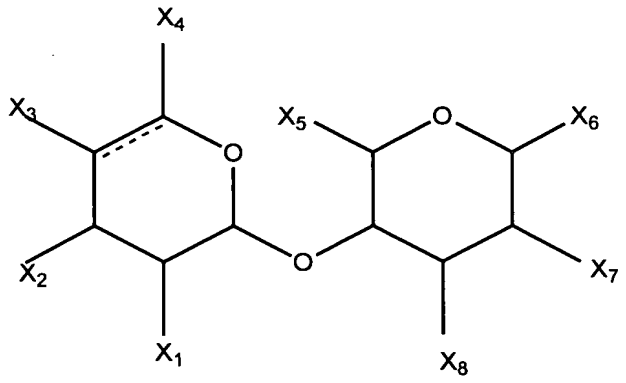
12. The method of claim 11, wherein said saccharide is sulfated.

13. The method of claim 11, wherein said saccharide is a disaccharide.

14. The method of claim 13, wherein said disaccharide is sulfated.

15. The method of any of claims 9 to 11, further comprising administering a disaccharide or a derivative thereof to a subject.

16. The method of claim 15, wherein said disaccharide or derivative thereof has the formula:



wherein:

the dotted line is an optional double bond;

X_1 is selected from the group consisting of hydroxyl, C_1 to C_{12} alkoxy, C_1 to C_{12} substituted alkoxy, sulfate, amino, (monosubstituted) amino and (disusbstituted)amino;

X_2 is selected from the group consisting of hydroxyl, C_1 to C_{12} alkoxy and C_1 to C_{12} substituted alkoxy;

X_3 is selected from the group consisting of hydrogen, hydroxyl, C_1 to C_{12} alkoxy and C_1 to C_{12} substituted alkoxy;

X_4 is selected from the group consisting of C_1 to C_{12} alkyl, C_1 to C_{12} substituted alkyl, hydrogen and the formula –C(O)OR, wherein R is absent or selected from the group consisting of C_1 to C_{12} alkyl, C_1 to C_{12} substituted alkyl and hydrogen;

X_5 is selected from the group consisting of C_1 to C_{12} alkyl, C_1 to C_{12} substituted alkyl, C_1 to C_{12} alkoxycarbonyl and C_1 to C_{12} substituted alkoxycarbonyl;

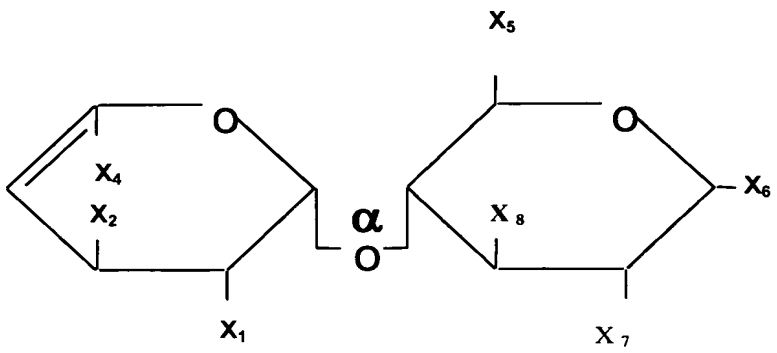
X_6 is selected from the group consisting of hydroxyl, C_1 to C_{12} alkoxy and C_1 to C_{12} substituted alkoxy;

X_7 is selected from the group consisting of hydroxyl, C_1 to C_{12} alkoxy, C_1 to C_{12} substituted alkoxy, sulfate, amino, (monosubstituted) amino and (disusbstituted)amino; and

X_8 is selected from the group consisting of hydroxyl, C_1 to C_{12} alkoxy and C_1 to C_{12} substituted alkoxy.

17. The method of claim 16, wherein: X_1 is selected from the group consisting of -OH, $-OSO_3H$, $-OSO_3^-$, $-NHSO_3H$ and $-NHSO_3^-$; X_2 is -OH; X_3 is selected from the group consisting of -OH and hydrogen; X_4 is selected from the group consisting of $-CH_2OSO_3H$, $-CH_2OSO_3^-$, $-C(O)O^-$, -C(O)OH and hydrogen; X_5 is selected from the group consisting of $-CH_2OH$, $-CH_2OSO_3H$ and CO_2H; X_6 is -OH; X_7 is selected from the group consisting of $-OSO_3H$, $-OSO_3^-$, $-NHSO_3H$, $-NHSO_3^-$, $-NHC(O)CH_3$, $-NH_2$ and $-NH_3^+$; and X_8 is -OH.

18. The method of claim 16, wherein said disaccharide or derivative thereof has the formula:



wherein:

X_1 is selected from the group consisting of hydroxyl, C_1 to C_{12} alkoxy, C_1 to C_{12} substituted alkoxy, sulfate, amino, (monosubstituted) amino and (disusbstituted)amino;

X_2 is selected from the group consisting of hydroxyl, C_1 to C_{12} alkoxy and C_1 to C_{12} substituted alkoxy;

X_3 is selected from the group consisting of hydrogen, hydroxyl, C_1 to C_{12} alkoxy and C_1 to C_{12} substituted alkoxy;

X_4 is selected from the group consisting of C_1 to C_{12} alkyl, C_1 to C_{12} substituted alkyl, hydrogen and the formula –C(O)OR, wherein R is absent or selected from the group consisting of C_1 to C_{12} alkyl, C_1 to C_{12} substituted alkyl and hydrogen;

X_5 is selected from the group consisting of C_1 to C_{12} alkyl, C_1 to C_{12} substituted alkyl, C_1 to C_{12} alkoxycarbonyl and C_1 to C_{12} substituted alkoxycarbonyl;

X_6 is selected from the group consisting of hydroxyl, C_1 to C_{12} alkoxy and C_1 to C_{12} substituted alkoxy;

X_7 is selected from the group consisting of hydroxyl, C_1 to C_{12} alkoxy, C_1 to C_{12} substituted alkoxy, sulfate, amino, (monosubstituted) amino and (disusbstituted)amino; and

X_8 is selected from the group consisting of hydroxyl, C_1 to C_{12} alkoxy and C_1 to C_{12} substituted alkoxy.

19. The method of claim 18, wherein: X_1 is selected from the group consisting of -OH, $-OSO_3H$, $-OSO_3^-$, $-NHSO_3H$ and $-NHSO_3^-$; X_2 is -OH; X_4 is selected from the group consisting of $-CH_2OSO_3H$, $-CH_2OSO_3^-$, $-C(O)O^-$, -C(O)OH and hydrogen; X_5 is selected from the group consisting of $-CH_2OH$, $-CH_2OSO_3H$, $-CH_2OSO_3^-$, $-C(O)O^-$ and -C(O)OH; X_6 is -OH; X_7 is selected from the group consisting of $-OSO_3H$, $-OSO_3^-$, $-NHSO_3H$, $-NHSO_3^-$, $-NHC(O)CH_3$, $-NH_2$ and $-NH_3^+$; and X_8 is -OH.

20. The method of claim 18, wherein: X_1 is $-OSO_3^-$; X_2 is -OH; X_4 is $-C(O)O^-$; X_5 is $-CH_2OSO_3^-$; X_6 is -OH; X_7 is $-NHSO_3^-$; and X_8 is -OH.

21. The method of claim 18, wherein: X_1 is $-OSO_3^-$; X_2 is -OH; X_4 is $-C(O)O^-$; X_5 is $-CH_2OH$; X_6 is -OH; X_7 is $-NHSO_3^-$; and X_8 is -OH.

22. A method for modulating moesin-mediated intracellular signaling, wherein said signaling is capable of being mediated through an effect of a saccharide binding to moesin, comprising altering moesin activity in cells such that the moesin-mediated intracellular signaling is modulated.

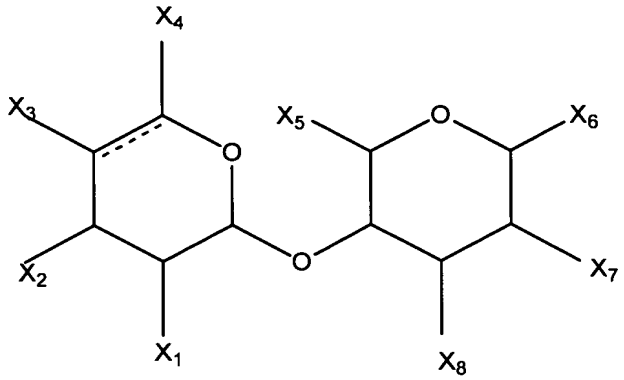
23. The method of claim 22, wherein said moesin activity is altered through administration of a saccharide or derivative thereof.

24. The method of claim 23, wherein the saccharide or derivative thereof is derived from heparin or heparan sulfate.

25. The method of claim 23, wherein the saccharide or derivative thereof is sulfated.

26. The method of claim 23, wherein the saccharide or derivative thereof is a disaccharide.

27. The method of claim 23, wherein said disaccharide or derivative thereof has the formula:



wherein:

the dotted line is an optional double bond;

X_1 is selected from the group consisting of hydroxyl, C_1 to C_{12} alkoxy, C_1 to C_{12} substituted alkoxy, sulfate, amino, (monosubstituted) amino and (disusbstituted)amino;

X_2 is selected from the group consisting of hydroxyl, C_1 to C_{12} alkoxy and C_1 to C_{12} substituted alkoxy;

X_3 is selected from the group consisting of hydrogen, hydroxyl, C_1 to C_{12} alkoxy and C_1 to C_{12} substituted alkoxy;

X_4 is selected from the group consisting of C_1 to C_{12} alkyl, C_1 to C_{12} substituted alkyl, hydrogen and the formula –C(O)OR, wherein R is absent or selected from the group consisting of C_1 to C_{12} alkyl, C_1 to C_{12} substituted alkyl and hydrogen;

X_5 is selected from the group consisting of C_1 to C_{12} alkyl, C_1 to C_{12} substituted alkyl, C_1 to C_{12} alkoxycarbonyl and C_1 to C_{12} substituted alkoxycarbonyl;

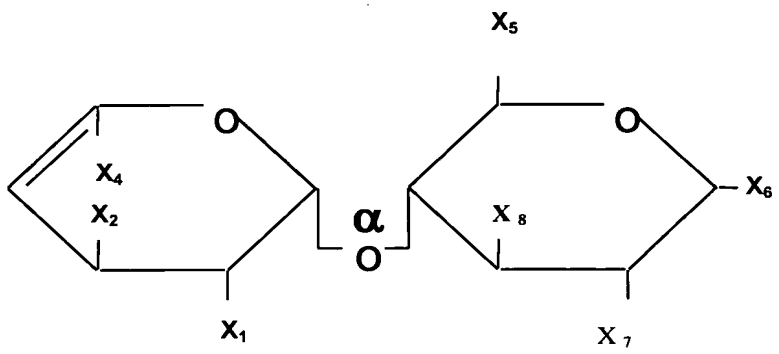
X_6 is selected from the group consisting of hydroxyl, C_1 to C_{12} alkoxy and C_1 to C_{12} substituted alkoxy;

X_7 is selected from the group consisting of hydroxyl, C_1 to C_{12} alkoxy, C_1 to C_{12} substituted alkoxy, sulfate, amino, (monosubstituted) amino and (disusbstituted)amino; and

X_8 is selected from the group consisting of hydroxyl, C_1 to C_{12} alkoxy and C_1 to C_{12} substituted alkoxy.

28. The method of claim 27, wherein: X_1 is selected from the group consisting of -OH, $-OSO_3H$, $-OSO_3^-$, $-NHSO_3H$ and $-NHSO_3^-$; X_2 is -OH; X_3 is selected from the group consisting of -OH and hydrogen; X_4 is selected from the group consisting of $-CH_2OSO_3H$, $-CH_2OSO_3^-$, $-C(O)O^-$, -C(O)OH and hydrogen; X_5 is selected from the group consisting of $-CH_2OH$, $-CH_2OSO_3H$ and CO_2H; X_6 is -OH; X_7 is selected from the group consisting of $-OSO_3H$, $-OSO_3^-$, $-NHSO_3H$, $-NHSO_3^-$, $-NHC(O)CH_3$, $-NH_2$ and $-NH_3^+$; and X_8 is -OH.

29. The method of claim 27, wherein said disaccharide or derivative thereof has the formula:



wherein:

X_1 is selected from the group consisting of hydroxyl, C_1 to C_{12} alkoxy, C_1 to C_{12} substituted alkoxy, sulfate, amino, (monosubstituted) amino and (disusbstituted)amino;

X_2 is selected from the group consisting of hydroxyl, C_1 to C_{12} alkoxy and C_1 to C_{12} substituted alkoxy;

X_3 is selected from the group consisting of hydrogen, hydroxyl, C_1 to C_{12} alkoxy and C_1 to C_{12} substituted alkoxy;

X_4 is selected from the group consisting of C_1 to C_{12} alkyl, C_1 to C_{12} substituted alkyl, hydrogen and the formula –C(O)OR, wherein R is absent or selected from the group consisting of C_1 to C_{12} alkyl, C_1 to C_{12} substituted alkyl and hydrogen;

X_5 is selected from the group consisting of C_1 to C_{12} alkyl, C_1 to C_{12} substituted alkyl, C_1 to C_{12} alkoxycarbonyl and C_1 to C_{12} substituted alkoxycarbonyl;

X_6 is selected from the group consisting of hydroxyl, C_1 to C_{12} alkoxy and C_1 to C_{12} substituted alkoxy;

X_7 is selected from the group consisting of hydroxyl, C_1 to C_{12} alkoxy, C_1 to C_{12} substituted alkoxy, sulfate, amino, (monosubstituted) amino and (disusbstituted)amino; and

X_8 is selected from the group consisting of hydroxyl, C_1 to C_{12} alkoxy and C_1 to C_{12} substituted alkoxy.

30. The method of claim 29, wherein: X_1 is selected from the group consisting of -OH, $-OSO_3H$, $-OSO_3^-$, $-NHSO_3H$ and $-NHSO_3^-$; X_2 is -OH; X_4 is selected from the group consisting of $-CH_2OSO_3H$, $-CH_2OSO_3^-$, $-C(O)O^-$, -C(O)OH and hydrogen; X_5 is selected from the group consisting of $-CH_2OH$, $-CH_2OSO_3H$, $-CH_2OSO_3^-$, $-C(O)O^-$ and -C(O)OH; X_6 is -OH; X_7 is selected from the group consisting of $-OSO_3H$, $-OSO_3^-$, $-NHSO_3H$, $-NHSO_3^-$, $-NHC(O)CH_3$, $-NH_2$ and $-NH_3^+$; and X_8 is -OH.

31. The method of claim 29, wherein: X_1 is $-OSO_3^-$; X_2 is -OH; X_4 is $-C(O)O^-$; X_5 is $-CH_2OSO_3^-$; X_6 is -OH; X_7 is $-NHSO_3^-$; and X_8 is -OH.

32. The method of claim 29, wherein: X_1 is $-OSO_3^-$; X_2 is -OH; X_4 is $-C(O)O^-$; X_5 is $-CH_2OH$; X_6 is -OH; X_7 is $-NHSO_3^-$; and X_8 is -OH.

33. A method for modifying at least one effect of at least one external influence on an eukaryotic cell, wherein the at least one effect is affected by binding of a saccharide

to moesin, comprising modification by the saccharide of moesin, thereby modifying the effect.

34. The method of claim 33, wherein the effect is increased.

35. The method of claim 33, wherein the effect is decreased.

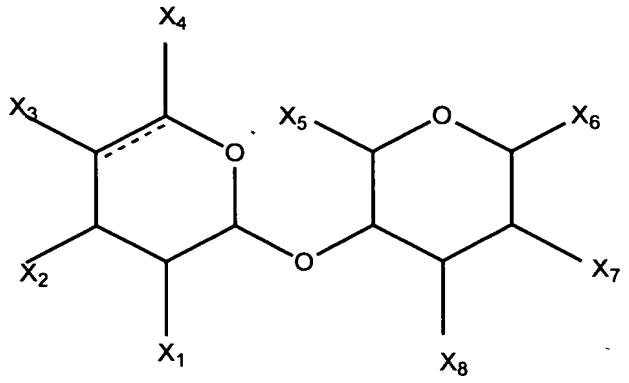
36. A method for modifying at least one effect of at least one external influence on an eukaryotic cell, wherein the at least one effect is mediated by binding of a saccharide to moesin, comprising altering the at least one effect by binding a substance to meosin, thereby modifying the effect.

37. The method of claim 36, wherein the saccharide or derivative thereof is derived from heparin or heparan sulfate.

38. The method of claim 36, wherein the saccharide or derivative thereof is sulfated.

39. The method of claim 36, wherein the saccharide or derivative thereof is a disaccharide.

40. The method of claim 36, wherein said disaccharide or derivative thereof has the formula:



wherein:

the dotted line is an optional double bond;

X_1 is selected from the group consisting of hydroxyl, C_1 to C_{12} alkoxy, C_1 to C_{12} substituted alkoxy, sulfate, amino, (monosubstituted) amino and (disusbstituted)amino;

X_2 is selected from the group consisting of hydroxyl, C_1 to C_{12} alkoxy and C_1 to C_{12} substituted alkoxy;

X_3 is selected from the group consisting of hydrogen, hydroxyl, C_1 to C_{12} alkoxy and C_1 to C_{12} substituted alkoxy;

X_4 is selected from the group consisting of C_1 to C_{12} alkyl, C_1 to C_{12} substituted alkyl, hydrogen and the formula –C(O)OR, wherein R is absent or selected from the group consisting of C_1 to C_{12} alkyl, C_1 to C_{12} substituted alkyl and hydrogen;

X_5 is selected from the group consisting of C_1 to C_{12} alkyl, C_1 to C_{12} substituted alkyl, C_1 to C_{12} alkoxycarbonyl and C_1 to C_{12} substituted alkoxycarbonyl;

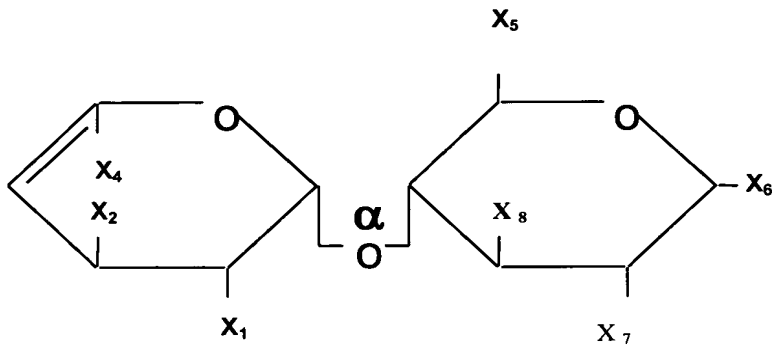
X_6 is selected from the group consisting of hydroxyl, C_1 to C_{12} alkoxy and C_1 to C_{12} substituted alkoxy;

X_7 is selected from the group consisting of hydroxyl, C_1 to C_{12} alkoxy, C_1 to C_{12} substituted alkoxy, sulfate, amino, (monosubstituted) amino and (disusbstituted)amino; and

X_8 is selected from the group consisting of hydroxyl, C_1 to C_{12} alkoxy and C_1 to C_{12} substituted alkoxy.

41. The method of claim 40, wherein: X_1 is selected from the group consisting of -OH, $-OSO_3H$, $-OSO_3^-$, $-NHSO_3H$ and $-NHSO_3^-$; X_2 is -OH; X_3 is selected from the group consisting of -OH and hydrogen; X_4 is selected from the group consisting of $-CH_2OSO_3H$, $-CH_2OSO_3^-$, $-C(O)O^-$, -C(O)OH and hydrogen; X_5 is selected from the group consisting of $-CH_2OH$, $-CH_2OSO_3H$ and CO_2H; X_6 is -OH; X_7 is selected from the group consisting of $-OSO_3H$, $-OSO_3^-$, $-NHSO_3H$, $-NHSO_3^-$, $-NHC(O)CH_3$, $-NH_2$ and $-NH_3^+$; and X_8 is -OH.

42. The method of claim 40, wherein said disaccharide or derivative thereof has the formula:



wherein:

X_1 is selected from the group consisting of hydroxyl, C_1 to C_{12} alkoxy, C_1 to C_{12} substituted alkoxy, sulfate, amino, (monosubstituted) amino and (disusbstituted)amino;

X_2 is selected from the group consisting of hydroxyl, C_1 to C_{12} alkoxy and C_1 to C_{12} substituted alkoxy;

X_3 is selected from the group consisting of hydrogen, hydroxyl, C_1 to C_{12} alkoxy and C_1 to C_{12} substituted alkoxy;

X_4 is selected from the group consisting of C_1 to C_{12} alkyl, C_1 to C_{12} substituted alkyl, hydrogen and the formula –C(O)OR, wherein R is absent or selected from the group consisting of C_1 to C_{12} alkyl, C_1 to C_{12} substituted alkyl and hydrogen;

X_5 is selected from the group consisting of C_1 to C_{12} alkyl, C_1 to C_{12} substituted alkyl, C_1 to C_{12} alkoxycarbonyl and C_1 to C_{12} substituted alkoxycarbonyl;

X_6 is selected from the group consisting of hydroxyl, C_1 to C_{12} alkoxy and C_1 to C_{12} substituted alkoxy;

X_7 is selected from the group consisting of hydroxyl, C_1 to C_{12} alkoxy, C_1 to C_{12} substituted alkoxy, sulfate, amino, (monosubstituted) amino and (disusbstituted)amino; and

X_8 is selected from the group consisting of hydroxyl, C_1 to C_{12} alkoxy and C_1 to C_{12} substituted alkoxy.

43. The method of claim 42, wherein: X_1 is selected from the group consisting of -OH, $-OSO_3H$, $-OSO_3^-$, $-NHSO_3H$ and $-NHSO_3^-$; X_2 is -OH; X_4 is selected from the group consisting of $-CH_2OSO_3H$, $-CH_2OSO_3^-$, $-C(O)O^-$, -C(O)OH and hydrogen; X_5 is selected from the group consisting of $-CH_2OH$, $-CH_2OSO_3H$, $-CH_2OSO_3^-$, $-C(O)O^-$ and -C(O)OH; X_6 is -OH; X_7 is selected from the group consisting of $-OSO_3H$, $-OSO_3^-$, $-NHSO_3H$, $-NHSO_3^-$, $-NHC(O)CH_3$, $-NH_2$ and $-NH_3^+$; and X_8 is -OH.

44. The method of claim 42, wherein: X_1 is $-OSO_3^-$; X_2 is -OH; X_4 is $-C(O)O^-$; X_5 is $-CH_2OSO_3^-$; X_6 is -OH; X_7 is $-NHSO_3^-$; and X_8 is -OH.

45. The method of claim 42, wherein: X_1 is $-OSO_3^-$; X_2 is -OH; X_4 is $-C(O)O^-$; X_5 is $-CH_2OH$; X_6 is -OH; X_7 is $-NHSO_3^-$; and X_8 is -OH.

46. A method for blocking cell migration or adhesion, comprising administering a modulating agent capable of mimicking binding of a saccharide to moesin, wherein the cell migration or adhesion is capable of being blocked by a saccharide binding to said moesin.

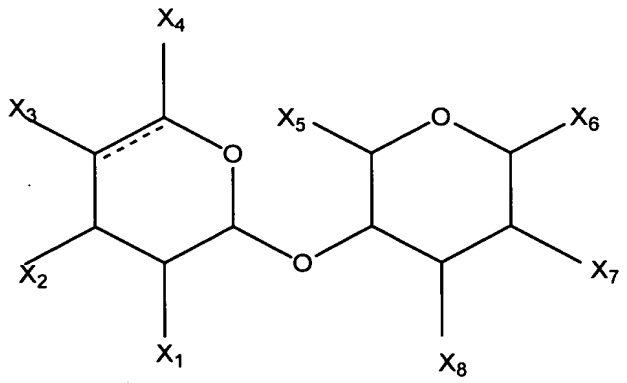
47. The method of claim 46, wherein said modulating agent is administered to treat a disease that is mediated by cell migration or adhesion.

48. The method of claim 46, wherein said modulating agent is administered to treat a disease characterized by malignant cell growth.

49. A method for blocking cytokine secretion, comprising administering a modifying agent for modifying moesin activity through a mechanism activated by saccharide binding to moesin.

50. The method of claim 49, wherein said modifying agent is used to treat a disease mediated through a cytokine.

51. Use of a compound of the formula:



wherein:

the dotted line is an optional double bond;

X_1 is selected from the group consisting of hydroxyl, C_1 to C_{12} alkoxy, C_1 to C_{12} substituted alkoxy, sulfate, amino, (monosubstituted) amino and (disusbstituted)amino;

X_2 is selected from the group consisting of hydroxyl, C_1 to C_{12} alkoxy and C_1 to C_{12} substituted alkoxy;

X_3 is selected from the group consisting of hydrogen, hydroxyl, C_1 to C_{12} alkoxy and C_1 to C_{12} substituted alkoxy;

X_4 is selected from the group consisting of C_1 to C_{12} alkyl, C_1 to C_{12} substituted alkyl, hydrogen and the formula –C(O)OR, wherein R is absent or selected from the group consisting of C_1 to C_{12} alkyl, C_1 to C_{12} substituted alkyl and hydrogen;

X_5 is selected from the group consisting of C_1 to C_{12} alkyl, C_1 to C_{12} substituted alkyl, C_1 to C_{12} alkoxycarbonyl and C_1 to C_{12} substituted alkoxycarbonyl;

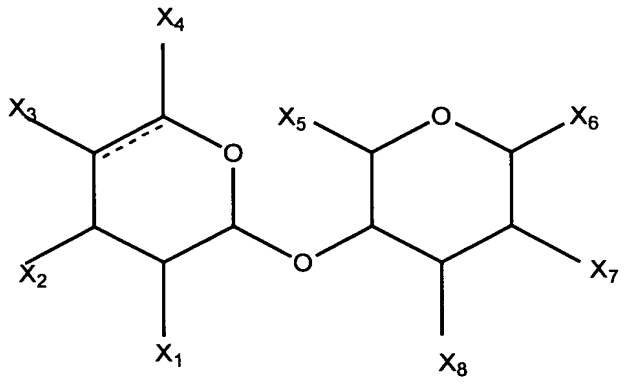
X_6 is selected from the group consisting of hydroxyl, C_1 to C_{12} alkoxy and C_1 to C_{12} substituted alkoxy;

X_7 is selected from the group consisting of hydroxyl, C_1 to C_{12} alkoxy, C_1 to C_{12} substituted alkoxy, sulfate, amino, (monosubstituted) amino and (disusbstituted)amino; and

X_8 is selected from the group consisting of hydroxyl, C_1 to C_{12} alkoxy and C_1 to C_{12} substituted alkoxy,

wherein said use is for treating a condition selected from the group consisting of parasitic infection, bacterial infection, viral infection, nerve injury or damage, nerve regeneration, Downs syndrome, inflammatory disease, brain injury, lung cancer, cancer, head and neck cancer, skin cancer, pancreatic cancer, metastatic cancer, GI cancer, GI disease, skin disease, allergy and autoimmune disease.

52. Use of a compound of the formula:



wherein:

the dotted line is an optional double bond;

X_1 is selected from the group consisting of hydroxyl, C_1 to C_{12} alkoxy, C_1 to C_{12} substituted alkoxy, sulfate, amino, (monosubstituted) amino and (disusbstituted)amino;

X_2 is selected from the group consisting of hydroxyl, C_1 to C_{12} alkoxy and C_1 to C_{12} substituted alkoxy;

X_3 is selected from the group consisting of hydrogen, hydroxyl, C_1 to C_{12} alkoxy and C_1 to C_{12} substituted alkoxy;

X_4 is selected from the group consisting of C_1 to C_{12} alkyl, C_1 to C_{12} substituted alkyl, hydrogen and the formula –C(O)OR, wherein R is absent or selected from the group consisting of C_1 to C_{12} alkyl, C_1 to C_{12} substituted alkyl and hydrogen;

X_5 is selected from the group consisting of C_1 to C_{12} alkyl, C_1 to C_{12} substituted alkyl, C_1 to C_{12} alkoxycarbonyl and C_1 to C_{12} substituted alkoxycarbonyl;

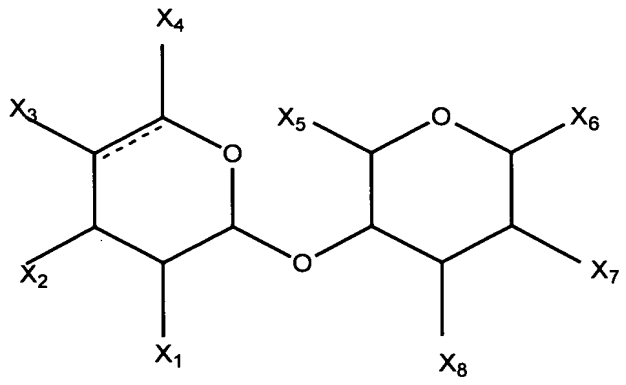
X_6 is selected from the group consisting of hydroxyl, C_1 to C_{12} alkoxy and C_1 to C_{12} substituted alkoxy;

X_7 is selected from the group consisting of hydroxyl, C_1 to C_{12} alkoxy, C_1 to C_{12} substituted alkoxy, sulfate, amino, (monosubstituted) amino and (disusbstituted)amino; and

X_8 is selected from the group consisting of hydroxyl, C_1 to C_{12} alkoxy and C_1 to C_{12} substituted alkoxy,

wherein said use is for inhibiting chemokine-dependent migration or chemokine-dependent adhesion of cells expressing moesin by mediating the inhibition of the chemokine-dependent activity through at least one activation of moesin or at least one modification of existing moesin activity.

53. Use of a compound of the formula:



wherein:

the dotted line is an optional double bond;

X_1 is selected from the group consisting of hydroxyl, C_1 to C_{12} alkoxy, C_1 to C_{12} substituted alkoxy, sulfate, amino, (monosubstituted) amino and (disusbstituted)amino;

X_2 is selected from the group consisting of hydroxyl, C_1 to C_{12} alkoxy and C_1 to C_{12} substituted alkoxy;

X_3 is selected from the group consisting of hydrogen, hydroxyl, C_1 to C_{12} alkoxy and C_1 to C_{12} substituted alkoxy;

X_4 is selected from the group consisting of C_1 to C_{12} alkyl, C_1 to C_{12} substituted alkyl, hydrogen and the formula –C(O)OR, wherein R is absent or selected from the group consisting of C_1 to C_{12} alkyl, C_1 to C_{12} substituted alkyl and hydrogen;

X_5 is selected from the group consisting of C_1 to C_{12} alkyl, C_1 to C_{12} substituted alkyl, C_1 to C_{12} alkoxycarbonyl and C_1 to C_{12} substituted alkoxycarbonyl;

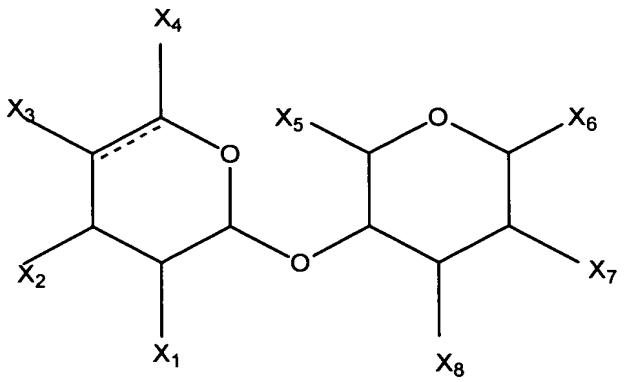
X_6 is selected from the group consisting of hydroxyl, C_1 to C_{12} alkoxy and C_1 to C_{12} substituted alkoxy;

X_7 is selected from the group consisting of hydroxyl, C_1 to C_{12} alkoxy, C_1 to C_{12} substituted alkoxy, sulfate, amino, (monosubstituted) amino and (disusbstituted)amino; and

X_8 is selected from the group consisting of hydroxyl, C_1 to C_{12} alkoxy and C_1 to C_{12} substituted alkoxy,

wherein said use is for modulating moesin-mediated intracellular signaling, wherein said signaling is capable of being mediated through an effect of a saccharide binding to moesin by altering moesin activity in cells such that the moesin-mediated intracellular signaling is modulated.

54. Use of a compound of the formula:



wherein:

the dotted line is an optional double bond;

X_1 is selected from the group consisting of hydroxyl, C_1 to C_{12} alkoxy, C_1 to C_{12} substituted alkoxy, sulfate, amino, (monosubstituted) amino and (disusbstituted)amino;

X_2 is selected from the group consisting of hydroxyl, C_1 to C_{12} alkoxy and C_1 to C_{12} substituted alkoxy;

X_3 is selected from the group consisting of hydrogen, hydroxyl, C_1 to C_{12} alkoxy and C_1 to C_{12} substituted alkoxy;

X_4 is selected from the group consisting of C_1 to C_{12} alkyl, C_1 to C_{12} substituted alkyl, hydrogen and the formula –C(O)OR, wherein R is absent or selected from the group consisting of C_1 to C_{12} alkyl, C_1 to C_{12} substituted alkyl and hydrogen;

X_5 is selected from the group consisting of C_1 to C_{12} alkyl, C_1 to C_{12} substituted alkyl, C_1 to C_{12} alkoxycarbonyl and C_1 to C_{12} substituted alkoxycarbonyl;

X_6 is selected from the group consisting of hydroxyl, C_1 to C_{12} alkoxy and C_1 to C_{12} substituted alkoxy;

X_7 is selected from the group consisting of hydroxyl, C_1 to C_{12} alkoxy, C_1 to C_{12} substituted alkoxy, sulfate, amino, (monosubstituted) amino and (disusbstituted)amino; and

X_8 is selected from the group consisting of hydroxyl, C_1 to C_{12} alkoxy and C_1 to C_{12} substituted alkoxy,

wherein said use is for modifying at least one effect of at least one external influence on an eukaryotic cell, wherein the at least one effect is mediated by binding of a saccharide to moesin, by, modification by the saccharide of moesin, thereby modifying the effect.